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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,319	12/10/1999	AIDAN JAMES SMYTH	DIVA-043	8719

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EXAMINER

RAMAN, USHA

ART UNIT PAPER NUMBER

2623

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/458,319

Applicant(s)

SMYTH ET AL.

Examiner

Usha Raman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed February 28th 2006 have been fully considered but they are not persuasive.

Applicant's arguments stating that "Day does not teach or suggest how frequently the playlist is accessed" and further concluding that, "just because it accesses the playlist to determine when the next clip needs to be retrieved does not imply it is continuously accessing the playlist" have been noted. However the examiner respectfully disagrees. The claim language recites server controller "continuously accessing playlist", which is clearly shown in figure 3 of Day. The playlist is continuously accessed in order to make a judgement on whether or not there are additional segments in the playlist, and in the event there are additional playlist, to pre-fetch the next clip at a predetermined time prior to the end of the current clip. As a result, the examiner maintains rejection.

Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Day et al. (US Pat. 5,996,015) in view of DeMoney (US Pat. 6,065,050), Katinsky et al. (US Pat. 6,452,609) and Goode et al. (US Pat. 5,781,227).

In regards to claims 8 and 16, Day discloses an information distribution system including provider equipment (201) and subscriber equipment (203), wherein provider equipment communicates to said subscriber equipment information streams including content requested by said subscriber equipment (see column 3, lines 10-20 and lines 43-46), comprising:

a session manager, for interacting with said subscriber equipment and maintaining a playlist (i.e. provides stream control functions for controlling the playback of media. See column 3, lines 58-61, column 4 lines 1-2 and column 5, lines 43-45), said playlist defining at least one content stream to be provided to (see column 6, lines 28-29)

a server for storing content streams (data pump 111 stores multimedia assets. See column 3, lines 43-45); and

a server controller for retrieving from said server, content streams defined by said playlist, said content streams being sequentially provided to said subscriber equipment (see column 5, lines 45-54, column 6, lines 40-50);

Day also discloses that during the playback of clips from a playlist the system determines if additional clips in the playlist are present, and in the event there are additional clips, it retrieves the additional clips and concatenates it to the current clip so that the clip maybe played seamlessly – thereby masking the latency on subscriber side. See Day: column 6, lines 36-64. Furthermore, while the session is active, the system checks for additional clips in the playlist, to determine if additional data needs to be retrieved. Therefore, the system also

comprises the step of "continuously accessing playlist" while the session is active, in order to determine when the next clip needs to be retrieved in order to be streamed to the user.

While Day teaches controlling the playback of a content stream using VCR style functions (see column 5, lines 43-45), the system lacks the step of associating a fast forward and reverse stream with the content streams or modifying the play list in response to play list modification commands from a subscriber equipment, and further lacks the step of a subscriber equipment utilizing subscriber-side latency masking techniques.

DeMoney teaches maintaining normal play stream with a look up table for associating the trick play stream (such as fast forward and fast reverse streams) with the content stream. When a user changes the playback rates (i.e. change of attribute) of the content stream using VCR type functions, the media server switches the respective trick play stream associated with the command, based on the offset from the look up table. Note column 4, lines 59-67 and column 5, lines 1-60 of DeMoney. DeMoney further discloses that switching of streams occurs only at well-defined "random-access" points (i.e. splicing points). Note column 5, lines 47-52. The index table contains the offset points that mark the entry and exit points. When a content stream is switched, the media server looks for an offset in the next content stream (i.e. an entry point in the next content stream) that is just beyond the current output offset (i.e. exit point of the current content stream). Note column 10, lines 31-53.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Day in view of DeMoney's teachings by maintaining a look up table associating trick play streams with the content streams as an "additional information" relating to the content stream (see column 4, lines 8-22 in Day) for providing trick play functionality by indexing, in order to reduce processing requirement of the video server. The modified system further contains plurality of splicing points for each content stream, defined by the offsets in the index table, where the next content stream is spliced at an entry point (next offset) associated with an exit point (current offset) of a current stream.

The modified system of Day in view of DeMoney lacks modifying the play list in response to play list modification commands sent from subscriber equipment and further lacks the step of a subscriber equipment utilizing subscriber-side latency masking techniques.

Katinsky teaches a user-friendly media player interface that initiates and manages a session with content provider (i.e. "session manager") by creating and maintaining a sequencer (play list) with content streams to be played at the subscriber equipment, where the media player further allows the user to modify the play list. Note column 3, lines 43-54 and column 4, lines 10-20 of Katinsky. Using the media player interface, the subscriber can modify the play list by adding or deleting content streams as well as skip forward and backward to a content stream to be played. Note column 6, lines 19-26 and column 2, lines 55-57 in Katinsky.

It would have been obvious to further modify the system of Day in view of DeMoney with Katinsky's teachings by providing a play-list modification capabilities of Katinsky in order to allow the user to dynamically modify or change the sequence of media content streams to be played.

The above-modified system further lacks the step of a subscriber equipment utilizing subscriber-side latency masking techniques. Goode discloses the step a subscriber equipment utilizing subscriber side latency masking techniques, when the subscriber selects functions requiring the information server to provide new information stream for viewing. See Goode: abstract, column 1, lines 35-40, column 2, lines 7-18. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Goode, enabling the subscriber equipment to utilize subscriber side latency masking techniques, when the subscriber selects functions requiring information server to provide new information stream for viewing (such as skip forward/backward to a next clip). The motivation is to mask the effects of latency introduced compression/decompression when a new stream is requested, thereby creating a smooth playback for the user.

In further regards to claim 16, Day further discloses that the playlist is generated at the provider equipment. See column 6, lines 14-30 in Day. Furthermore, the session manager of the modified system controls the media session in response to all the user commands, including playlist modification commands.

In regards to claims 9 and 17, the modified system provides modification commands such as fast forward, fast reverse as well as skip forward and skip backwards commands (see column 6, lines 19-26 in Katinsky).

In regards to claims 10 and 18, the modified system provides a session manager with "add" and "delete" functionalities that allow media objects to be added or removed from the play list. Note column 2, lines 55-57.

In regards to claim 11, the modified system provides a session manager with skip forward and skip backward functionalities to skip to next or previous clip in the play-list. Note figure 7, reference numbers (106) and (107) and description in column 6, lines 19-26 of Katinsky.

In regards to claims 12 and 19, the modified system provides a session manager with trick play functionalities that allow a fast reverse and fast forwards stream to be associated with the content stream in response to fast forward and fast reverse commands. Note column 5, lines 25-60 of DeMoney.

In regards to claims 13 and 20, Day discloses that at a predetermined point (threshold level) prior to the end of the current data stream, an initialization process begins for the next video segment on the play list, to prepare the next data stream to be seamlessly concatenated to the end of the current data stream. Note column 6, lines 31-64 of Day. Therefore the modified system of Day in view of DeMoney and Katinsky has "termination notification" means that is

communicated to the server when the current data stream reaches the predetermined point (the threshold level).

In regards to claims 14 and 21, upon reaching the predetermined point prior to the end of the current data stream, the session manager indicates to the server controller the next content stream to be provided to the subscriber equipment.

In regards to claim 15, the multimedia files in the modified system are striped across disks of a plurality of storage servers. Note column 3, lines 15-20, lines 39-67, and column 4, lines 23-30 of Day. The data pump acts as the "transport processor", where under the control of the server controller, delivers the media assets to the subscriber equipment.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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